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The Histerid Beetles of New Caledonia

(Coleoptera: Histeridae)

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INTRODUCTION

The only comprehensive report that has been published on the Histeridae of New Caledonia appeared in 1891 in one of Albert Fauvel's valuable papers on the Coleoptera of the island. In it, Fauvel recorded eleven species, four of them new. Since the appearance of Fauvel's paper, only one additional species has been reported or described from New Caledonia.

In 1946, Dr. Charles L. Remington, now of Yale University, presented me with a small lot of Histeridae that he collected while he was stationed in New Caledonia during World War II. His collection contained nine species, of which five were undescribed minute forms. Fauvel had described two minute species, but his brief descriptions made recognition of them difficult. He had assigned them to the genus *Abraeus*, but it was evident that he was in error, because species of this genus apparently do not occur in the entire Australian region¹ or east of the Philippines. Because the Fauvel Collection was still in the hands of Fauvel's heirs and not available for study, nothing could be done about examining his types to determine the status of his minute forms, nor could the Remington collection be satisfactorily worked up for a report.

Following the acquisition of the Fauvel Collection by the Institut Royal des Sciences Naturelle de Belgique in 1951, a reciprocal loan of types between that institution and Chicago Natural History Museum made it possible for me to examine type specimens of all

¹ Of the New Zealand species assigned by Broun to the genus *Abraeus*, only the following have not previously been re-assigned: *A. phyllobius* Broun belongs in the subfamily Tribalinae and may tentatively be placed in the genus *Tribalus*; *A. vividulus* Broun must be placed in a new genus, related to *Anapleus*, in the subfamily Dendrophilinae.

four of the New Caledonia histerid species described by Fauvel. Notes on these are incorporated herein, five additional species are described as new, and two other species are recorded from the island for the first time. In addition to Remington's material (CNHM), I have examined a few specimens from the United States National Museum (USNM) and Iowa State College at Ames (ISC), and some specimens received by exchange from the British Museum (Natural History) (BMNH).

In treating the above collections, I have thought it best to review briefly the New Caledonia histerid fauna. Under each species I have listed previous records. Since all but one of these are summarized in Fauvel's paper (1891) I have not cited bibliographic references to them. The single additional record is documented in the appropriate place.

In listing measurements, I have used P-P to indicate length between anterior pronotal angles and pygidial apex, and P-E to indicate the length between anterior pronotal angles and apex of elytra. In species of *Bacanius* and some species of *Acritus* the pygidium is inflexed and the measurement P-P cannot be made.

All photographs were made with a photomicrographic camera coupled to a compound microscope (without ocular), equipped with Leitz Ultropak illuminator and objectives.

ACKNOWLEDGMENTS

I am indebted to the following: to Dr. Charles L. Remington, for the gift of specimens upon which the larger part of this report is based; to Dr. Edward A. Chapin, formerly Curator of Insects of the United States National Museum, and to Dr. Carl Drake, Department of Entomology, Iowa State College at Ames, for the loan of specimens collected by Wilfred Crabb; to Dr. Pierre Basilewsky and Dr. Gaston Fagel, of the Institut Royal des Sciences Naturelle de Belgique, Brussels, for the loan of Fauvel types; to Dr. N. D. Riley, Head Keeper, Dr. D. Balfour-Browne, and Dr. E. B. Britton, all of the Department of Entomology, British Museum (Natural History), for their many kindnesses during my stay at the British Museum (Natural History) in 1952; to Dr. Lucien Chopard, Director, and Monsieur Guy Colás for their kind assistance during my stay at the Laboratoire d'Entomologie, Museum National d'Histoire Naturelle, Paris, in 1951-52; and to Miss Margaret Bradbury, Staff Artist, Department of Zoology, Chicago Natural History Museum,

for preparing the map of New Caledonia and the line drawings of this paper.

COLLECTORS AND LOCALITIES

The collections upon which Fauvel based his review of the New Caledonia Histeridae were made primarily by the following: The resident French missionary priest, Xavier Montrouzier, who collected on the island from 1853 until his death at St. Louis in 1897; Émile Deplanche, who made two trips to New Caledonia during the years 1858–60 and collected in the region of Nouméa and on the Isle of Pines and the Isle of Lifou; M. Bavay, a ship's pharmacist, who collected with Deplanche; Alexis Savés and M. Godard, who collected in the region of Nouméa, Tonghoué, and Yahoué toward the close of the nineteenth century; and a Mr. Atkinson, who collected in the region of Koné. For a detailed account of the early New Caledonia collections and collectors, see Fauvel (1903).

All the Histeridae collected by Charles Remington come from seven miles southeast of La Foa. The specimens collected by Wilfred Crabb come from Mt. Dore and St. Louis.

The accompanying map (fig. 133) indicates all the localities from which histerids have been reported. Some of the locality names differ from those given by Fauvel. Fauvel's locality "Kanala" is now spelled "Canala." The locality "Ourail" could not be found on any of the available maps. Heller (1916) lists this locality as "Ourai," and, from the indication given by him as to its geographic location, it is the same as the locality listed as "Uarai" on the map¹ from which figure 133 was prepared. I could find no locality "Mt. Kogui," but this, again judging by the relative position given it in Heller's list, is probably equivalent to "Mts. de Koghis." Fauvel's "Tonghoué" is probably the same as, or near, "Col de Tongoué." "Mt. Dore" is referred to on some maps as "Mt. D'or."

Inspection of the map reveals that of the sixteen localities shown on New Caledonia, more than half are situated within an area (enclosed in the rectangle) of not more than 200 square miles. The island is 248 miles long and 30 miles wide; the total area is nearly 7,300 square miles. All the localities shown are along or near the coast. It is obvious that much more extensive collecting should be done, particularly in the interior of the island.

¹ Map no. 2, Survey of New Caledonia, U.S. Army, the War College, Washington, D.C. 20454, 1942.

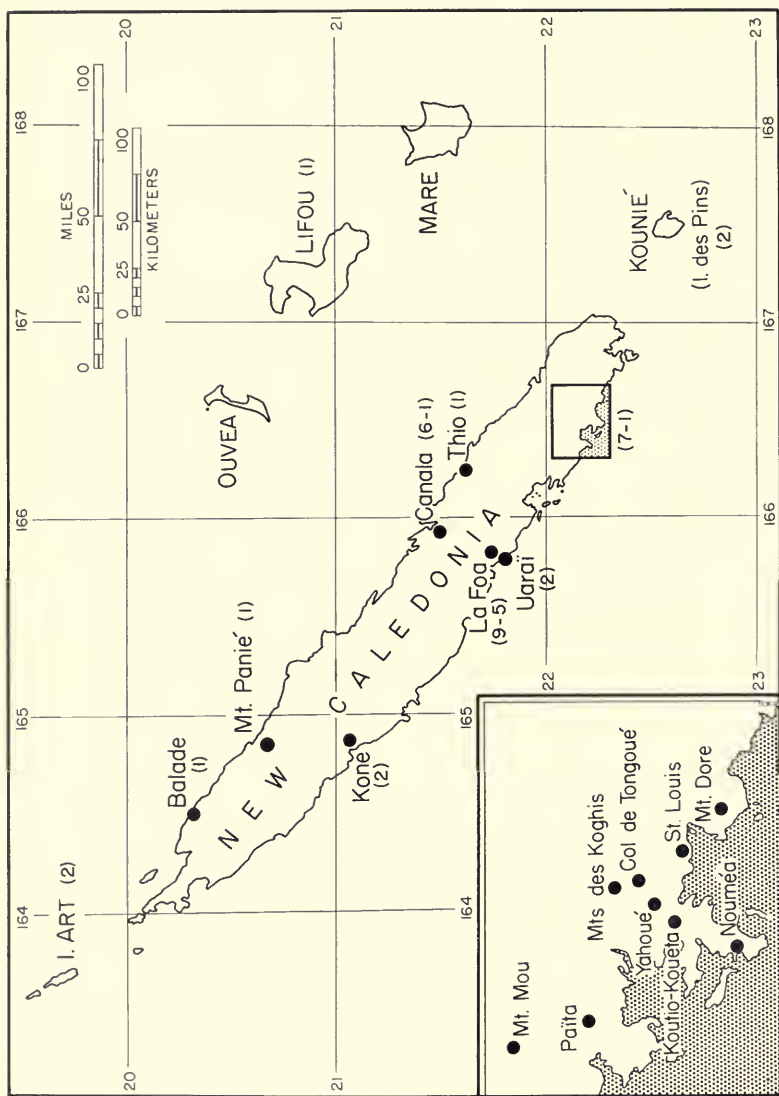


Fig. 133. Map of New Caledonia, indicating localities from which Histeridae have been reported. The first (or only) number in parentheses indicates the number of species recorded from a given locality; the second number, when present, indicates the number of species that are known only from that locality.

It is evident, too, that more intensive collecting is needed, especially of the microfauna. It will be noted that Remington collected nine species, five of which are minute, new, and known only from a single locality. Yet his collection was made over a period of only a few months—during such time as he could spare—under wartime military conditions. Remington's discovery of such a high percentage of minute new species in one locality reflects the fact that he gave special attention to exploiting microhabitats, using modern collecting techniques. The endemic histerid fauna of New Caledonia will probably prove to consist largely of such minute species.

THE NEW CALEDONIA HISTERID FAUNA

The origin and relationships of the New Caledonia histerid fauna will be discussed later in a more comprehensive paper on the Histeridae of Micronesia and other Pacific Islands. However, it may here be noted that the *generic* composition of the New Caledonia histerid fauna is typical of a "filtered" island fauna such as that found in Micronesia and the Seychelles. The genus *Sternaulax* is the only obvious exception to this generalization; the only other described species of this primitive platysomine genus occurs in New Zealand. The inter-species relationships of the New Caledonia species of *Acritus* and *Bacanius* possibly indicate that there has been some development of endemic species complexes. This can be more satisfactorily demonstrated—or disproved—only after there has been further intensive collecting on New Caledonia and nearby island groups.

The known fauna consists of the following species (*=introduced species):

Subfamily Saprininae

Saprinus cyaneus Fabricius
Saprinus artensis Marseul
Saprinus subnitidus Marseul*

Subfamily Abraeinae

Aeletes crenatus sp. nov.
Acritus caledoniae sp. nov.
Acritus schmidtii sp. nov.

Subfamily Dendrophilinae

Carcinops pumilio Erichson*
Carcinops troglodytes Paykull*
Platylomalus forestieri Marseul
Bacanius acicularis Fauvel
Bacanius fauveli sp. nov.
Bacanius punctiger Fauvel
Bacanius remingtoni sp. nov.

Subfamily Histerinae

Sternaulax caledoniae Fauvel
Apobletes montrouzieri Marseul
Platysoma connexum Fauvel
Platysoma pacificum Lewis
Platysoma montrouzieri Perroud
Platysoma urvillei Le Guillou

KEY TO THE HISTERIDAE OF NEW CALEDONIA

1. Size minute, 0.6-0.9 mm. long (P-P).....2
 Size larger, 1.8 mm. or more long (P-P).....8
2. Protibiae expanded, outer margin with two or three minute denticles, the distal two widely separated; prosternum with a short, deflexed apical lobe, separated from the keel by a suture; prosternal keel broad throughout, at least as wide at middle as long.....3
 Protibiae narrow, outer margin with a fringe of numerous, closely placed, fine denticles; prosternum without apical lobe; prosternal keel narrower, not as wide at middle as long.....6
3. Form broadly oval, subglobose; surface rather evenly, umbilicately punctate throughout; most of the elytral punctures united in pairs, particularly laterally, uniting apically to form short grooves; marginal epipleural stria fine, difficult to trace anteriorly, the marginal elytral and subhumeral restricted to about apical half; epipleural fossette with several confused rows of punctures; a crenate stria present along meso-metasternal suture; a chain-like row of punctures present along basal pronotal margin at middle (text fig. 136, C); prosternal keel distinctly, closely punctate throughout.....*Bacanius acicularis* Fauvel (p. 620)
 Form more oblong-oval, moderately convex; not umbilicately punctate throughout; punctuation less even, with markedly coarser punctures on meso-metasternum and with elytral punctures that are distinctly coarser than pronotal punctures; marginal epipleural and marginal elytral striae complete, at most with a single row of punctures between them in fossette; meso-metasternal stria lacking, though a row of disconnected punctures may be present along suture; basal pronotal margin without a chain-like row of punctures; prosternal keel impunctate or with punctate area restricted to anterior half.....4
4. Epipleural fossette with a single row of very coarse punctures between the striae; marginal elytral stria very fine, subcariniform; subhumeral stria strong, well impressed, extending slightly beyond middle; metasternal disk with a central area of finer punctures; pygidia subcylindrically punctate, punctures mostly separated by less than their diameters; prosternal keel with a distinct transverse punctate area on apical half.....5
 Epipleural fossette glabrous, impunctate except for punctures of marginal epipleural stria; subhumeral stria very fine, extending well beyond middle; metasternal disk without central finely punctate area (though there are fine punctures across apex); prosternal keel impunctate, glabrous.
Bacanius remingtoni sp. nov. (p. 624)
5. Metasternal disk very coarsely punctate except for a few abruptly finer minute punctures at center of disk (pl. 14, fig. 1).....*Bacanius fauveli* sp. nov. (p. 622)
 Metasternal disk with a rather large area of gradually finer punctures along middle of disk (pl. 14, fig. 2).....*Bacanius punctiger* Fauvel (p. 624)
6. Scutellum not visible; mesosternum with a transverse row of longitudinal sulci; lateral metasternal stria recurving to the metepimeron at a point distinctly below mesepimeral-metepisternal suture (text fig. 137, A), antescutellar pronotal stria nearly straight; basal margin of pronotum crenated by coarse, elongate punctures; pygidium feebly transversely micro-rugulose.
Aeletes crenatus sp. nov. (p. 610)

- Scutellum visible, though it may be difficult to detect except under very high magnification; mesosternum with a triangular impression; lateral metasternal stria recurving to the mesepimeral-metepisternal suture and continuous with the outer mesepimeral stria (text fig. 137, B); antescutellar stria arcuate; pygidium punctate, glabrous.....7
7. Mesosternal impression a more acute triangle, as is the area bounded by the marginal mesosternal stria (text fig. 135, B); prosternal striae more strongly divergent anteriorly, the anterior area of the keel tumid; elevated metasternal sides very finely sparsely punctate; elytra punctulate; pronotum with only a few punctures on disk in front of antescutellar stria, which is simply arcuate (text fig. 136, A).....*Acritus schmidtii* sp. nov. (p. 614)
- Mesosternal impression and area bounded by marginal mesosternal stria more broadly triangular (text fig. 135, A); prosternal striae only feebly divergent; elevated sides very distinctly, much more coarsely punctate; elytra distinctly punctate, the punctures stronger in a broad area along the suture from about basal fourth to apical third; pronotum distinctly punctate throughout, much more finely so along sides; antescutellar stria arcuate for the greater part of its width, then extending a short distance on each side parallel with basal margin (text fig. 136, B).....*Acritus caledoniae* sp. nov. (p. 612)
8. Antennal cavities situated in the anterior angles of the pronotum, partially closed from beneath by lateral extensions (alae) of the prosternal lobe; labrum without setigerous punctures.....9
- Antennal cavities not thus; labrum with setigerous punctures.....14
9. Prosternum with carinal striae.....10
- Prosternum without striae.....11
10. Size larger, about 6-8 mm.; form oblong oval, moderately convex; pygidium margined, as in *Platylister*.....*Sternaulax caledoniae* Fauvel (p. 626)
- Size small, 1.67-1.87 mm.; form elongate-oblong, very flat; pygidium immarginate.....*Apobletes montrouzieri* Marseul (p. 627)
11. Propygidium and pygidium with similar punctation.....12
- Propygidium smooth, pygidium densely, strongly punctate.
Platysoma pacificum Lewis (p. 629)
12. Pygidium (pl. 16, figs. 3, 4) finely, sparsely punctate on basal half, remotely punctulate apically, its general appearance smooth, with a small round foveole in each basal angle; epistoma very feebly impressed, frons feebly convex; marginal mesosternal stria following the contour of the margin; first abdominal sternum with punctures at extreme outer margin, the striae of the elevated sides very short, not extending from base to apex.
Platysoma connexum Fauvel (p. 628)
- Pygidium densely, rather coarsely and ocellately punctate, at least baso-laterally, broadly impressed in each basal angle; first abdominal sternum with striae in antero-lateral angle as well as elsewhere on elevated sides (lateral to coxa), the striae long, many extending from base to apex.....13
13. Marginal stria of prosternal lobe typically interrupted basally on each side, with the ends of the apical portion curving inwardly; second abdominal sternum coarsely punctate laterally; metepimeron closely punctate.
Platysoma montrouzieri Perroud (p. 629)

- Marginal stria of lobe complete, following the margin throughout its length; metepimeron sparsely punctate; sides of second abdominal sternum with punctures and a long, transverse stria. *Platysoma urvillei* Le Guillou (p. 630)
14. Antennal cavities situated next to the prosternal keel; prosternal lobe absent. 15
 Antennal cavities situated along the middle of the pronotal hypomera; a prosternal lobe present, separated from the keel by a transverse suture. 17
15. Distinctly bicolored species, having brilliant coppery pronotum with violet reflections, and brilliant green or blue green elytra. 16
 All black with metallic reflections, except elytra, which may be deep brownish with feeble violet reflections. *Saprinus subnitidus* Marseul (p. 610)
16. Dorsal elytral stria 3 much reduced, present on about basal third, slightly longer than half the length of dorsals 2 and 4, these extending slightly beyond middle; interval 2-4 impunctate; lateral longitudinal band of pronotal punctation abbreviated at approximately basal fourth. . . . *Saprinus artensis* Marseul (p. 609)
 Dorsal 3 as long as either 2 or 4, extending at least to middle; lateral pronotal punctures usually extending to base, never abbreviated as far from base as basal fourth; interval 2-4 frequently punctate.
Saprinus cyaneus Fabricius (p. 608)
17. Scutellum visible; elytra striate; form oblong-oval, moderately convex. . . . 18
 Scutellum not visible; elytra not striate; form oblong, rather feebly convex, punctate throughout. *Platylomalus forestieri* Marseul (p. 619)
18. Sutural stria typically absent on about basal fourth; outer subhumeral stria usually present on about middle fifth; mesosternum and sides of metasternal disk (medial to inner lateral metasternal stria) punctulate or sometimes with a few somewhat obsolete coarser punctures, particularly on mesosternum and on metasternum in front of and medial to hind coxae, appearance of disk smooth (fig. 138, B); spermatheca with a long neck.
Carcinops troglodytes Paykull (p. 618)
 Sutural stria typically continued to base by punctures; outer subhumeral stria usually absent, at most represented by a few punctures or an irregular eroded line; mesosternum and sides of metasternal disk distinctly, usually rather densely and deeply punctate, the rest of the metasternal disk punctulate, appearance of disk punctate (fig. 138, A); spermatheca with a short neck.
Carcinops pumilio Erichson (p. 616)

Subfamily SAPRININAE

Saprinus cyaneus Fabricius (= *laetus* Marseul, *australasiae* Blackburn) new synonymy

Hister cyaneus Fabricius, 1775, Syst. Ent., 1: 52—British Museum (Natural History) (Nova Hollandia); Paykull, 1811, Mon. Hist., p. 56, pl. 5, fig. 2.

Saprinus cyaneus Erichson, 1834, in Klug, Jahrb. Insektenk., 1: 178; Blackburn, 1903, Trans. Roy. Soc. S. Austr., 32: 107; Marseul, 1855, Ann. Soc. Ent. Fr., (3), 3: 385, pl. 10, fig. 26.

Saprinus laetus Erichson, 1834, in Klug, Jahrb. Insektenk., 1: 179—Zoologisches Museum der Humboldt-Universität, Berlin (Australia); Marseul, 1855, op. cit., p. 388, pl. 10, fig. 29; Marseul, 1862, op. cit., (4), 2: 444, pl. 12, fig. 6; Blackburn, 1903, Trans. Roy. Soc. S. Austr., 32: 107.

Saprinus speciosus Boisdual, 1835, Voy. Astrol., 2: 148 (nec Erichson, 1834, in Klug, Jahrb. Insektenk., 1: 179).

Saprinus australasiae Blackburn, 1903, Trans. Roy. Soc. S. Austr., 32: 107—British Museum (Natural History) (Australia).

The list of references in the above synonymy is not complete, but it includes all the citations that are pertinent here. Blackburn proposed the name *australasiae* for *laetus* Marseul, which he considered to be distinct from *laetus* Erichson. Erichson based his *laetus* on *cyaneus* Paykull, which he thought was distinct from *cyaneus* Fabricius.

Saprinus cyaneus is characterized by great variability both in punctuation and in the length of the dorsal elytral striae. This variability is accentuated by sexual dimorphism in the elytral punctuation. The males rarely have elytral aciculations; the females nearly always have aciculations, these varying in extent, being sometimes restricted to an area in stria interspaces 2-4—where they are independent of punctuation—at other times being associated with nearly all of the elytral punctures.

I have studied the types of *cyaneus* Fabricius and *australasiae* Blackburn and specimens of Marseul's *laetus*, and I have matched them with individual variants within a large series of what I consider to be one species, from the collection of Chicago Natural History Museum. The compared specimens have been dissected; they exhibit no differences in structure of the male terminalia.

Previous records.—None.

Material examined.—One specimen from seven miles southeast of La Foa, collected "on carrion," April 4, 1945, by Charles L. Remington (CNHM). Two specimens from Mt. Dore, collected August 22, 1944, by Wilfred Crabb (USNM); three specimens from St. Louis, collected May 10, 1944, by Wilfred Crabb (USNM).

Saprinus artensis Marseul

Saprinus artensis Marseul, 1860, Ann. Soc. Ent. Fr., (3), 8: 266; Marseul, 1862, op. cit., (4), 2: 445, pl. 12, fig. 7—Museum National d'Histoire Naturelle, Paris (New Caledonia: Isle of Art).

Saprinus tasmanicus Redtenbacher, 1868, Reise Nov., Zool., 2, Abt. 1, Coleop., p. 33 (nec Marseul, 1855, Ann. Soc. Ent. Fr., (3), 3: 386, *fide* Fauvel, 1891, Rev. d'Ent., 10: 167).

This species resembles *cyaneus* very closely in its external characters, but differs markedly in the complex chaetotaxy and adornment

of the apices of the eighth sternum, in the male terminalia. These structures will be figured by me in a future revision of the Saprinae of the Australian region.

Unfortunately, I have seen no authentically determined specimens of *tasmanicus*, nor have I studied the type. It is possible that *tasmanicus* and *artensis* are conspecific.

Previous records.—Nouméa; Thio; Mt. Kogui; Balade; Ourail; Lifou.

Material examined.—A single specimen labeled "New Caledonia" from the George Lewis Collection (BMNH).

Saprinus subnitidus Marseul

Saprinus subnitidus Marseul, 1855, Ann. Soc. Ent. Fr., (3), 3: 404, pl. 17, fig. 41—Museum National d'Histoire Naturelle, Paris (central France).

Saprinus proximus Wollaston, 1864, Cat. Col. Canar., pp. 169, 170 (in part).

I have not seen the specimen upon which Fauvel based his New Caledonia record of this European species. Although the species could have been introduced, I view the record with suspicion. *Subnitidus* has so many characters in common with the endemic *Saprinus* species of the Australian region, that a person who is not well acquainted with the fauna might easily confuse a member of the *nitiduloides-cyaneocupreus* group with *subnitidus*.

Previous records.—Canala.

Subfamily ABRAEINAE

Aeletes crenatus sp. nov. Figures 134, 137, A.

A minute, oval-convex species of glabrous appearance. Epistoma and pygidium transversely, reticulately microrugulose. Antescutellar pronotal stria present, straight. Prosternum nearly rectangular, elongate. Legs short. Two mesepimeral striae present, the outer continuous with the meso-postcoxal stria. Lateral metasternal stria complete, but not continuous with either of the mesepimeral stria, terminating somewhat below the mesepimeral-metepisternal suture. Mesosternum with a row of about seven longitudinal sulci.

Aeletes crenatus is most closely related to undescribed species from Micronesia. It superficially resembles *politus* LeConte and *laevis* Wenzel from the New World in appearance and in structure of pro- and mesosternum; these species lack an antescutellar stria. Of the described species of *Aeletes*, *crenatus* is related only to *daubani* Scott

(1913, p. 230) from the Seychelles. Like *daubani*, *crenatus* has an antescutellar pronotal stria, and an outer mesepimeral stria that is continuous with the meso-postcoxal stria; *daubani* differs in having ten to twelve mesosternal sulci, an obtusely produced mesosternal margin (somewhat as in *Halacritus*), coarsely punctate elevated

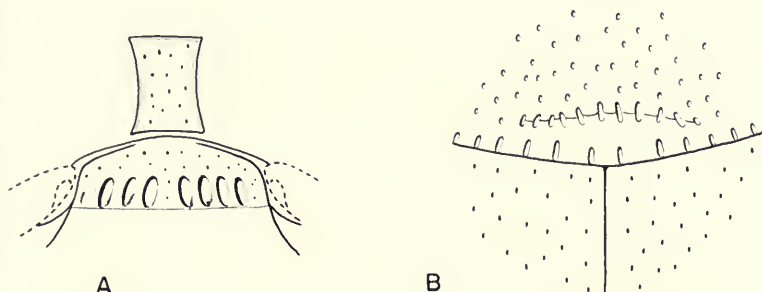


FIG. 134. *Aeletes crenatus* sp. nov. A, pro- and mesosternum; B, antescutellar pronotal stria.

metasternal sides, a more finely crenated antescutellar stria, glabrous pygidium and epistoma, and prosternal striae that are strongly divergent anteriorly.

Color orange-brown, shining. Epistoma transversely and reticulately microrugulose, minute punctures scattered throughout on epistoma and frons. Marginal epistomal stria on sides only, absent along anterior margin.

Pronotum with a feebly arcuate, nearly straight crenato-punctate antescutellar stria on about middle half of basal width. Basal margin crenated by coarse punctures, these absent on about lateral eighth. Disk with strong, but not coarse, sparse punctures which become minute and somewhat closer anteriorly and smaller and sparser along lateral margins. Marginal stria complete.

Elytra minutely, sparsely punctulate. Propygidium with deep, minute, sparse punctures. Pygidium with minute, strong, sparse punctures; transversely and reticulately microrugulose.

Under side minutely, sparsely punctulate. Prosternal keel essentially rectangular in appearance, the striae feebly arcuate; a little less than twice as long as wide at middle (4:2.15), a little wider at apex than at base (3:2.5). Marginal mesosternal stria interrupted for width of prosternal keel. Meso-metasternal suture marked by a row of about seven longitudinal sulci, the median sulci the longest, these extending anteriorly for about half the length of mesosternal disk. Lateral metasternal stria complete, recurving outwardly and anteriorly to terminate at edge of elevated side a short distance behind the mesepimeral-metepisternal suture. Meso-postcoxal stria curved over to the mesepimeron and continuous with the outer mesepimeral stria. Meso- and meta-postcoxal plaques and metepimeron with feeble indications of rugulae, without punctation.

First abdominal sternum with feebly emarginate posterior margin. Lateral stria of intercoxal disk oblique, arcuate, extending to near apex of segment, not extending laterally. Meta-postcoxal stria recurved to metepimeron.

Legs rather short; middle femur, when extended posteriorly, reaching about one-half the distance between meso- and metacoxae.

Length, P-E, 0.57–0.61 mm.; width 0.42–0.43.

Holotype.—A specimen of undetermined sex, collected seven miles southeast of La Foa, January 28, 1945, by Charles L. Remington. In the collection of Chicago Natural History Museum.

Paratypes.—One specimen, same data as holotype. Two specimens, same locality as holotype, collected April 6, 1945, "under bark" by Charles L. Remington. All in the collection of Chicago Natural History Museum.

Remarks.—I am unable to detect any sexual dimorphism in either the elytral punctation or the emargination of the first abdominal sternum, in the specimens before me. Because I am unable to determine the sex of any of the type series, I cannot say whether or not such dimorphism exists.

Acritus caledoniae sp. nov. Figures 135, A, 136, B, 137, B.

An oblong-oval, convex species with antescutellar pronotal stria. Marginal epistomal stria present along sides only. Pronotal disk moderately punctate. Elytra with a cluster of coarser punctures on inner half of elytra from basal fourth to middle in the male, continuing apically but narrowing in the female. Ground surface of pygidia glabrous. Prosternal keel of moderate width, the striae feebly arcuate. Mesosternum obtusely triangular in area bounded by marginal stria, the disk with a triangular impression. Mesopostcoxal and lateral metasternal striae complete and continuous with the inner and outer mesepimeral striae, respectively. Metepimeron with a longitudinal stria near lateral margin. First abdominal sternum with a complete lateral stria.

A. caledoniae is most closely related to *schmidtii* sp. nov., but differs from it by the characters given in the key. *Acritus lilliputianus* from Central America has a similarly shaped triangular mesosternal impression—as do some Hawaiian species of *Aeletes*—but has a single mesepimeral stria, transversely rugulose pygidia, and aciculate punctures on apical half of elytra. *A. caledoniae* also somewhat resembles *A. biloculatus* de Cooman from Indo-China and the Philippines. *A. biloculatus* lacks a triangular mesosternal impression, though it does have an oblique stria on each side of the mesosternal disk (see *schmidtii*, below), and, like a related undescribed species from the Mariannas, has a unistriate mesepimeron and aciculate punctate elytra.

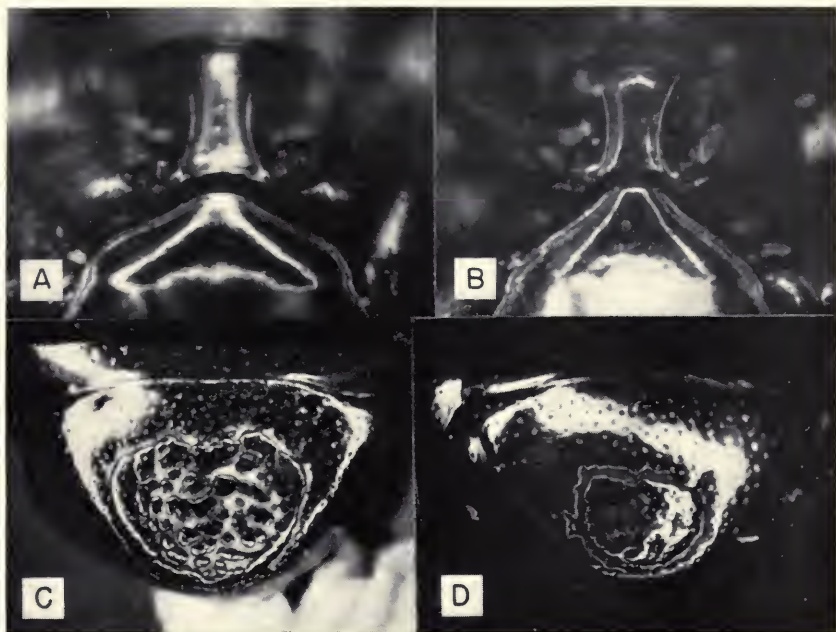


FIG. 135. A, *Acritus caledoniae* sp. nov., paratype, pro- and mesosternum; B, *A. schmidtii* sp. nov., paratype, pro- and mesosternum. *Platylomalus forestieri* Marseul, pygidium, C, male, D, female.

Color orange-brown. Epistoma deeply, finely, sparsely punctate, frons minutely so. Epistomal stria present along sides only.

Pronotum with a finely crenate, arcuate, antescutellar stria, the arcuate portion occupying about one-third of basal pronotal width, continued for a short distance on each side parallel with basal margin, so that its total width is a little more than half of base (10:17). Disk moderately, not coarsely, deeply punctate in a broad area in front of antescutellar stria, the punctures finer anteriorly and, particularly, laterally; punctures so minute along lateral margins that appearance is smooth. Basal margin crenated by a few moderate punctures which become finer laterally and disappear at about lateral sixth. Marginal stria complete.

Elytra with a strong complete marginal stria, which is rather gently arched above the flat fossette. Epipleura with vague longitudinal impressions which appear to represent an obsolete stria. Elytral punctation: female, minutely very sparsely punctate throughout, excepting a broad (about half width of elytra) area of coarser punctures (the coarsest nearly the size of the coarsest pronotal punctures) from basal fourth along suture to near apex; the punctures becoming smaller from middle to apex and the band narrowing apically to a couple of rows of fine punctures along the suture; male, coarser punctures much finer than in the female and extending apically only to middle or slightly beyond, the cluster narrower than in the female; elsewhere, in both sexes, the punctures are most distinct basally and essentially disappear apically.

Pygidium with a few microscopic punctures scattered throughout, ground surface glabrous.

Prosternum, proportions: length, 4.8; width at apex, 3.1; width at middle, 1.75; width at base, 2.0; appearance narrowly rectangular, the striae evenly feebly arcuate on each side, a little more strongly divergent apically, the carina only slightly convex near apex.

Mesosternum obtusely angulate at middle (more than 90°); marginal stria forming an obtuse rounded angle at middle, feebly impressed at middle though usually complete; disk largely occupied by a triangular impression whose basal side, along the meso-metasternal suture, is most deeply impressed and whose apex forms a near right angle; sides of the impression not formed by striae as in *schmidti*. Under side microscopically, sparsely punctate (appearance glabrous) excepting the elevated metasternal sides which are moderately coarsely, sparsely punctate, the coarser punctures extending onto disk in front of the hind coxae. Meso-postcoxal plaque and bistriate mesepimeron with a few moderate punctures. Lateral metasternal stria complete, arcuate, continuous with outer mesepimeral stria; meso-postcoxal stria complete, continuous with inner mesepimeral stria.

Apical margin of first abdominal sternum broadly, feebly, angulately emarginate in both sexes. Lateral stria of intercoxal disk extending posteriorly to near apex of sternum, then extending laterally to near lateral margin of elevated side, then recurving anteriorly to near base. Meta-postcoxal stria recurving to base of elevated side of sternum, sometimes extending a short distance laterally along basal margin.

Length, P-E, 0.71–0.80 mm., P-P, 0.77–0.89 mm.; width 0.50–0.57 mm.

Holotype.—A male, collected seven miles southeast of La Foa, January 28, 1945, by Charles L. Remington. In the collection of Chicago Natural History Museum.

Allotype.—A female, same data and depository as the holotype.

Paratypes.—Two males and a female, same data as the holotype. Two males and two females, same data, but collected February 8, 1945. One male, March, 1945. Three males, two females, same locality, April 6–19, 1945. All collected from under bark by Charles L. Remington. In the collection of Chicago Natural History Museum.

Acritus schmidti sp. nov. Figures 135, B, 136, A.

Closely related to *A. caledoniae*, differing from it principally by the characters given in the key. In the structure of its prosternal keel it resembles some Hawaiian species of *Aeletes*, for example, *longipes* Scott.

Form oblong-oval, moderately convex. Color testaceous to orange-brown. Epistomal stria present along side margins only. Surface minutely, sparsely punctulate throughout, appearance smooth, except on elevated metasternal sides and pygidia where punctures are distinct and sparse but still minute.

Pronotum with a strongly arcuate, closely and not coarsely crenated antescutellar stria on slightly more than half of basal width (9:16.5). Basal margin with a

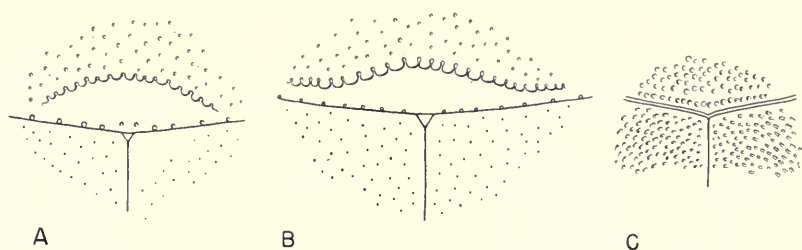


FIG. 136. Base of pronotum showing antescutellar stria. A, *Acritus schmidtii*, sp. nov.; B, *A. caledoniae* sp. nov.; C, *Bacanius acicularis* Fauvel.

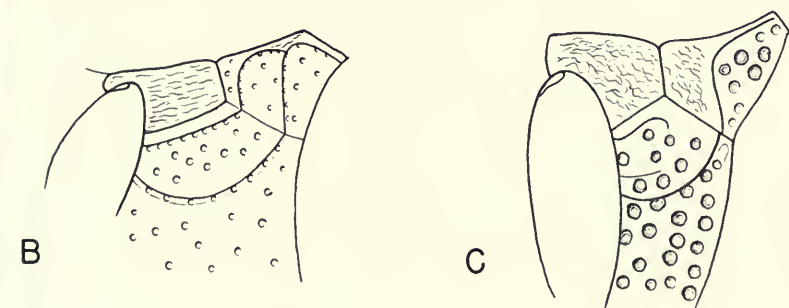
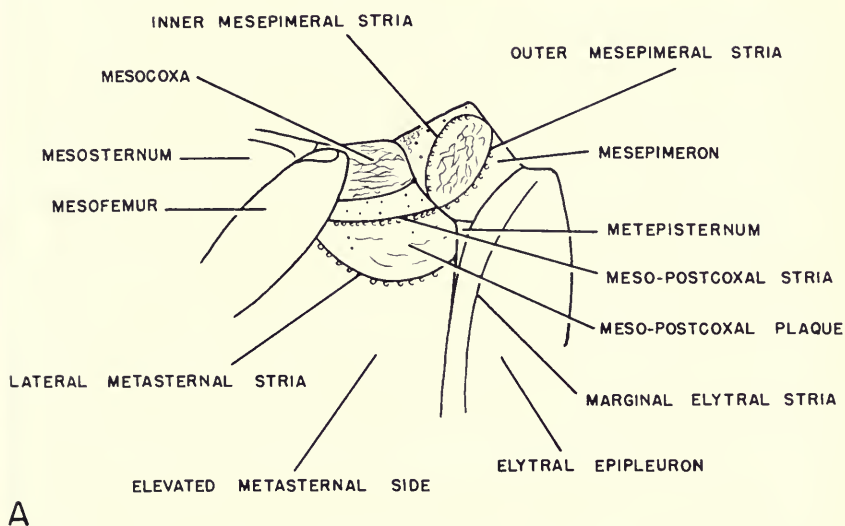


FIG. 137. Mesepimeron and adjacent metasternal area. A, *Aeletes crenatus* sp. nov.; B, *Acritus caledoniae* sp. nov.; C, *Bacanius fauveli* sp. nov.

few sparse, moderate, crenating punctures, these disappearing laterally. Marginal elytral stria strongly impressed, subcariniform, strongly arched above flat epipleural fossette, the latter sometimes with vague impressions.

Prosternal keel rather narrow, proportions: length, 3.2; width between striae at apex, 3.5; width between striae at base, 1.5; appearance, carinal striae strongly divergent apically, nearly parallel basally, keel noticeably convex apically.

Mesosternum triangularly produced at middle; the marginal stria slightly sinuate on each side, forming a near right angle whose apex follows the conformation of the mesosternal projection, the stria complete, not interrupted behind the prosternum. Disk occupied by an equilateral triangular impression, whose base lies along the meso-metasternal suture and whose sides are formed by a strongly angulate subcariniform stria. Mesepimeral, meso-postcoxal and lateral metasternal striae as in *caledoniae*. Apex of first abdominal sternum feebly, arcuately emarginate (in both sexes?). Striae of first sternum as in *caledoniae*.

Legs not long, but middle femur, when extended posteriorly, reaching about four-fifths the distance to hind coxa.

Length, P-E, 0.68–0.77 mm.; width 0.50–0.57 mm.

Holotype.—A specimen of undetermined sex, collected under bark, seven miles southeast of La Foa, January 31, 1945, by Charles L. Remington. In the collection of Chicago Natural History Museum.

Paratypes.—Two specimens, same data as the holotype; one, same locality as the holotype, collected February 8, 1945; two, same locality, collected March 19 and 24, 1945; all collected by Charles L. Remington. Deposited in the collection of Chicago Natural History Museum.

Remarks.—No sexual dimorphism is apparent in the type series. This species is named in honor of Karl Patterson Schmidt.

Subfamily DENDROPHILINAE

Carcinops pumilio Erichson

Paromalus pumilio Erichson, 1834, in Klug, Jahrb. Insektenk., 1: 169—Zoologisches Museum der Humboldt-Universität, Berlin (Spain); Wollaston, 1854, Ins. Mad., p. 213; 1857, Cat. Col. Ins. Mad., p. 74; Redtenbacher, 1858, Fauna Austr., Käf., 2nd ed., p. 313.

Carcinops pumilio Marseul, 1855, Ann. Soc. Ent. Fr., (3), 3: 91, pl. 8, fig. 4; 1862, op. cit., (4), 2: 8; 1864, Abeille, 1: 329; Seidlitz, 1891, Fauna Transylv., p. 216; Kolbe, 1910, Mitt. Zool. Mus. Berl., 5: 21; Kühnt, 1913, Illustr. Bestimmungs-Tab. Käf. Deutsch., p. 371; Rapp, 1933, Käf. Thüring., 1: 590.

Carcinus pumilio Aclouque, 1896, Faune Fr., Coleop., p. 251.

Dendrophilus 14-striata Stephens, 1832, Illus. Brit. Ent., 5: 412—British Museum (Natural History) (England: Battersea) (invalid name).

Carcinops 14-striata Wollaston, 1864, Cat. Coleop. Canar., p. 166; Schmidt, 1885, Berl. Ent. Zeitschr., 29: 299; Fowler, 1889, Coleop. Brit. Is., 3: 205.

Carcinops quatuordecimstriata Gemminger and Harold, 1868, Cat. Coleop., 3: 377; des Gozis and Fauvel, 1886, Rev. d'Ent., 5: 196; Fauvel, 1891, op. cit., 10: 167; Ganglbauer, 1899, Käf. Mitteleurop., 3: 374; Reitter, 1909, Fauna Germ., 2: 287; Auzat, 1925, Misc. Ent., p. 106; Portas, 1926, Fauna Coleop. Ital., 2: 373; Burgeon, 1939, Ann. Mus. Congo Belg., C-Zool., Series III (II), 5, fasc. 2, p. 73; Horion, 1949, Fauna Mitteleurop. Käf., 2: 347.

Paromalus quatuordecimstriatus Horn, 1873, Proc. Amer. Phil. Soc., 13: 308.

Carcinops quatuordecimstriata Bickhardt, 1910, Coleop. Cat., 8, pars. 24, p. 60; Scott, 1913, Trans. Linn. Soc. London, 16: 225; Hinton, 1945, Bull. Ent. Res., 35: 52, figs. 52, 53, 55; Müller, 1946, Ann. Mag. Nat. Hist., (11), 13: 532; Bickhardt, 1920, Arch. Naturg., 87A, Heft 6, p. 151.

Hister nanus LeConte, 1845, Boston Jour. Nat. Hist., 5: 61, pl. 4, fig. 4.

Epiurus krujanensis Mader, 1921, Wien. Ent. Zeit., 38: 181—(Albania: Kruja); Mader, 1927, Ent. Anz., 7: 193.

According to the requirements of Article 3 of the International Rules of Zoological Nomenclature, the name *14-striata* Stephens is invalid. The first emendation of *14-striata* to a name composed entirely of letters of the Latin alphabet apparently was by Gemminger and Harold (1868). In the interim, the name *pumilio* had been independently proposed by Erichson (1834) for the same species, as had *nanus* by Le Conte (1845). The validly emended name has not been used much more often within the last sixty years than has *pumilio*. The invalid emendation *quatuordecimstriata* Horn (1873)—which, under the recent decisions of the International Zoological Congress at Copenhagen, must be considered as a separate name and as a synonym of *quatuordecimstriata* Gemminger and Harold—has been used in some of the more important recent papers by Bickhardt (1920), Hinton (1945) and Müller (1946). There is a large literature—consisting chiefly of very brief notes on distribution and ecology of the species—which is too voluminous to cite here. In it both spelling variants are used. I do not feel that the interests of stability are to be served by retaining *quatuordecimstriata* because the name is frequently altered, and it is so long and cumbersome that, to avoid labored usage, authors frequently resort to Stephens' shorthand name within the text of their papers. Under the circumstances, it seems best to apply the rule of priority and adopt Erichson's name *pumilio*.

C. pumilio is commonly found in grain and stored grain products where it may be a predator upon various grain insects. It is cosmopolitan in distribution, but probably it is primarily a temperate zone species and only occasionally is to be found in warmer regions, and then primarily in association with human activities. *Carcinops tibialis* Lea is almost certainly a synonym of either this or the following species.

Previous records.—Koné. Canala.

Material examined.—A single specimen from seven miles south-east of La Foa, collected "at light," February 22, 1945, by Charles L. Remington (CNHM). Many additional specimens from various localities throughout the world.

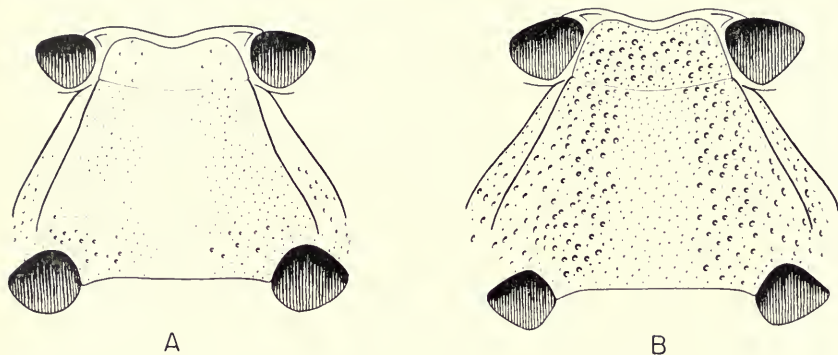


FIG. 138. Meso-metasternal disk: A, *Carcinops troglodytes* Paykull; B, *C. pumilio* Erichson.

***Carcinops troglodytes* Paykull (= *Carcinops* [*Dendrophilus*] *minuta* Fåhraeus) new synonymy**

Hister troglodytes Paykull, 1811, Mon. Hist., p. 46, pl. 10, fig. 1—Naturhistoriska Riksmuseet, Stockholm ("India Orientale").

Paromalus troglodytes Erichson, 1834, in Klug, Jahrb. Insektenk., 1: 169.

Carcinops troglodytes Marseul, 1855, Ann. Soc. Ent. Fr., (3), 3: 92, pl. 8, fig. 5; 1862, op. cit., (4), 2: 8; 1864, Abeille, 1: 329 (key).

Dendrophilus minutus Fåhraeus, 1851, in Boheman, Ins. Caffr., 1: 552 (no. 602)—Naturhistoriska Riksmuseet, Stockholm ("Caffraria": in forests of upper Gariep [Orange] River); Marseul, 1857, Ann. Soc. Ent. Fr., (3), 5: 165.

Carcinops minuta Lewis, 1905, Syst. Cat. Hist., p. 38; Bickhardt, 1920, Arch. Naturg., 87A, Heft 6, p. 150; Burgeon, 1939, Ann. Mus. Cong. Belg., C-Zool., Ser. III (II), 5, fasc. 2, p. 73; Müller, 1946, Ann. Mag. Nat. Hist., (11), 13: 533.

Epierus rubripes Boheman, 1858, Eugen. Resa, Ins., 1: 37—Naturhistoriska Riksmuseet, Stockholm (Argentina: Buenos Aires).

Carcinops rubripes Marseul, 1862, Ann. Soc. Ent. Fr., (4), 1, (1861), pl. 15 (xxiv), fig. 6; 1862, op. cit., (4), 2: 8.

Carcinops palans Marseul, 1862, Ann. Soc. Ent. Fr., (4), 2: 8; 1862, op. cit., (4), 1, (1861), pl. 15 (xxiv), fig. 7 (pro *minuta* Fåhraeus 1851, nec *minima* Aubé 1850).

As early as 1834, Erichson pointed out that this species might be as widespread as the closely related *pumilio*. To my knowledge, the species has never since been identified from outside the new world, though it apparently is tropicopolitan in distribution. The locality of the type has not even been included under the distribution of the species in the catalogues. It is probable that *troglydytes* has been confused with *pumilio* and that most of the records of *pumilio* from the warmer parts of the world have actually been based upon specimens of *troglydytes*. It is obvious from his remarks on variations that Hinton (1945, p. 336) based his identification of *pumilio* on a mixed series of the two species.

C. troglydytes is even more closely related to *assimilis* Wenzel than it is to *pumilio*. *C. assimilis* is known only from the type series, from the debris pile of a leaf-cutting ant, Satipo, Junín Province, Peru, where it was collected in company with *troglydytes*.

Previous records.—None, but it is possible that Fauvel's record of *pumilio* was based on *troglydytes*, at least in part.

Material examined.—Three specimens from Mt. Dore, collected August 22, 1944, by Wilfred Crabb (ISC). In connection with determining the above synonymies, I have examined one of Boheman's original types of *rubripes* and one of Fåhraeus' original types of *minutus*, both in the Marseul collection in the Museum National d'Histoire Naturelle, Paris. The type of *rubripes* is labeled "Buenos Ayres. Boh.," that of *minutus* is labeled "*Carcinops palans* M. *minutus* F. Caffr. Boh." Other specimens examined from the Pacific area are from Hollandia, Dutch New Guinea (Malkin); Saipan Island, in the Mariannas (Dybas); Luzon Island, in the Philippines (Staudinger specimen); and Honolulu (BMNH).

***Platylomalus forestieri* Marseul comb. nov. Figure 135, C, D.**

Paromalus forestieri Marseul, 1870, Ann. Soc. Ent. Belg., 13: 96—Museum National d'Histoire Naturelle, Paris (New Caledonia).

P. forestieri has previously been considered to be endemic to New Caledonia. It is closely related to *umbilicatus* Marseul, *victoriae* Marseul, and *saucius* Blackburn, all from Australia. In fact, *victoriae* and *forestieri* may be identical; at hand is a specimen from the George Lewis Collection, identified as *victoriae* and bearing the label "Victoria, Sidney," that is identical with some of the female specimens of *forestieri* collected by Remington in New Caledonia. Marseul's description of *victoriae* applies to female *forestieri* very well, but I am unwilling to synonymize the name until I have compared the types. At any rate, it is clear that *forestieri* occurs in Australia.

I am indebted to Father Albert de Cooman, Missions Étrangères, Paris, for identifying this species.

Previous records.—Yahoué, under rotten bark of candlenut tree, August; Tonghoué, November; Canala; Ile des Pins; Koné.

Material examined.—Forty specimens from seven miles southeast of La Foa, January 28 and February 8, 1945, and five specimens, same locality, March 6–24, 1945; all collected under bark by Charles L. Remington (CNHM). Four specimens from Nouméa, collected August 27, 1944, by Wilfred Crabb (ICS). One specimen from Sidney, Victoria, Australia, from the George Lewis collection (BMNH), by exchange.

Bacanius acicularis Fauvel comb. nov. Plate 15, fig. 1; text figure 136, C.

Abraeus acicularis Fauvel, 1891, Rev. d'Ent., 10: 168—Institut Royal des Sciences Naturelle de Belgique, Brussels (New Caledonia: Yahoué).

A suborbicular, rather strongly convex species. Moderately, umbilicately punctate throughout, the elytral punctures united in pairs antero-laterally and laterally, subconfluent apically. A fine crenate meso-metasternal stria present. A chain-like row of punctures present along basal margin of pronotum at middle. Only one epipleural stria present (the marginal epipleural), the fossette margined dorsally by the subhumeral stria. Mesepimeron unistriate.

Bacanius acicularis is not closely related to any described species known to me. It superficially resembles *B. hamatus* of the New World tropics but lacks the hamate stria of the elytra and has a striate mesepimeron. *B. hamatus* also lacks the row of punctures along the base of the pronotum; this row would seem to represent the antescutellar pronotal stria which is present in some species of *Bacanius*, for example of the subgenera *Neobacanius* and *Mullerister*. *Bacanius sulcisternus* Wenzel, from Costa Rica, is the only other species known to me that has a similar basal antescutellar row, but in this almost smooth species the line is almost complete, extending nearly to the lateral margin, and the meso-metasternal suture is represented by a row of longitudinal sulci such as occurs in many species of *Aeletes*. In the nature of its elytral punctation, *acicularis* is unlike any described species. The following re-description is based on the unique type.

Color dark brown, shining. Rather evenly, closely, umbilicately punctate, punctures of moderate size, punctation appearing feebly imbricate in certain lighting, particularly on vertex of head. Microscopic punctulation intermingled throughout, visible only under very high magnification (ca. $\times 300$).

Head with punctures slightly finer on frons. Pronotal punctures coarser in antescutellar area, very gradually diminishing in size anteriorly and laterally, density rather constant throughout, the punctures separated mostly by less than their diameters. A marginal row of coarser, round, approximate, punctures present along base, extending laterally on each side to about middle of elytral base; anterior edges of these punctures seeming to form an indistinct crenate line in certain lights; a very short glabrous interval anterior to the row of punctures. Marginal pronotal stria complete, extremely fine along anterior margin.

Elytral punctures with a tendency to be half-moon-shaped basally along suture, somewhat larger and rounder at middle along suture. Outwardly the punctures unite to form elongate pairs, arranged in indistinct, outwardly arcuate concentric rows which begin near suture and curve outwardly and posteriorly; on about apical third the punctures coalesce to form short, punctate, longitudinal grooves. Laterally, particularly on humeri, the punctures, though double, are finer, nearly linear and appear imbricate. Epipleura with only a marginal epipleural stria, this very finely subcariniform basally, very strongly so below the fossette, the latter margined above by the finely subcariniform subhumeral stria, which is present on slightly more than apical half. Along upper edge of epipleural fossette, parallel with and just below the subhumeral stria, a row of punctures form an indefinite stria (marginal elytral?) of about the same length as the subhumeral. Marginal epipleural and subhumeral striae united at apex, extending across elytral apex to suture.

Propygidium short, visible, with a transverse row of punctures. Pygidium coarsely, closely punctate basally, the punctures finer apically.

Prosternal keel broad, its basal margin angulately emarginate for the reception of the angulate anterior margin of mesosternum. Keel and lobe more coarsely punctate than mesosternum, a common transverse area along suture impunctate but with longitudinal scratches extending from punctures of keel to punctures of lobe; lobe with dense punctures that are connected laterally by short grooves, apex of lobe feebly emarginate.

Meso-metasternal suture with a straight, fine, subcariniform, crenated transverse stria. Marginal stria apparently complete, but difficult to detect anteriorly, where it is partially covered by basal flange of prosternal keel. Lateral metasternal stria coarsely subcariniform, coarsely punctate, continuous with marginal mesosternal, complete and recurving to mesepimeral-metepisternal suture. Meso-postcoxal stria short (not reaching the mesepimeron), with a strong outwardly and posteriorly directed hook at apex. Punctures of meso-metasternal disk round, rather fine, separated by one and a half to two times their diameters, somewhat coarser posteriorly, markedly coarser laterally, about twice as large and separated by their diameters or less on elevated metasternal sides. Mesepimeron divided by a strongly arcuate (subangulate) longitudinal stria into a somewhat smaller impunctate inner area and an outer area that has two rows of coarse contiguous punctures. Meso-postcoxal plaque coarsely punctate. Metepimeron impunctate.

Intercoxal disk of first abdominal sternum with punctures of about the same size as those of the elevated metasternal sides, mostly separated by one-half their diameters or a little more; lateral stria coarse, punctate, subcariniform, inwardly oblique to a short distance from apex, then strongly, outwardly arcuate to near lateral margin, recurving for a little more than half distance to base. Meta-postcoxal plaque with a few coarse punctures posteriorly.

Protibiae broadly expanded, not contorted. Outer margin with two minute, widely separated denticles, the margin oblique from distal denticle to tarsal insertion; second denticle situated slightly before middle; interval between denticles straight, margin from base to first denticle strongly arcuate, with a few microscopic setae. Middle tibiae feebly dilated, outer margin feebly angulate near middle, a minute denticle just distal to angulation, a few microscopic setae basally. Hind tibiae absent on type. Denticulation and setae of tibiae visible only under ca. $\times 175$ or higher.

Length 0.88 mm., width 0.72 mm.

Material examined.—The unique type, labeled "Yahoué, février."

Remarks.—The meso-metasternal stria cannot be seen in the photograph.

Bacanius fauveli sp. nov. Plate 14, fig. 1; text figure 137, C.

A minute, oval, convex species. Antescutellar pronotal and meso-metasternal striae lacking, though a complete row of disconnected punctures is present along meso-metasternal suture. Punctate throughout, coarsely and densely so basally on elytra, very coarsely so on metasternum, a very small central area on metasternal disk with a few conspicuously finer punctures. Prosternal keel reticulato-punctate on apical half, glabrous on basal half. Epipleura with complete marginal epipleural and marginal elytral striae and a row of very coarse punctures between them on the fossette. Mesepimeron divided into an inner glabrous and an outer punctate area by a longitudinal, angulate stria.

Most closely related to *B. punctiger* Fauvel and an undescribed species from Peleliu Island (Palau). It differs from *punctiger* by the characters given in the key. *B. fauveli*, *punctiger*, *remingtoni* sp. nov., and the undescribed Peleliu Island species form a distinctive group, characterized by possessing both complete marginal elytral and marginal epipleural striae. Ordinarily the marginal elytral stria is absent on the apical half above the fossette.

Color reddish-brown. Epistoma distinctly convex basally in front of suture, finely, rather densely punctate, the punctures separated by one to two times their diameters. Punctures coarser on frons and vertex, the punctures above the eyes slightly coarser than the pronotal punctures behind the anterior margin.

Pronotum deeply, moderately, rather uniformly punctate, punctures mostly separated by one to one and one-half, frequently two times their diameters, coarsest in the antescutellar area, gradually slightly finer anteriorly and laterally. Marginal stria complete.

Elytra with two complete epipleural striae: the marginal epipleural well defined throughout and coarsely crenato-punctate; the marginal elytral stria more finely crenato-punctate anteriorly, finely subcariniform, "passing through" the punctures anteriorly, arcuate above the fossette (this portion of the stria coarsely

crenato-punctate, the punctures lying within the upper edge of the stria); fossette with a row of coarse punctures between the two striae. Subhumeral stria subcariniform, present on apical half, closely, moderately crenato-punctate. A feeble oblique basal stria present on humerus; humeri almost smooth, sparsely, minutely punctate. Elytra coarsely, densely punctate in scutellar region, punctures mostly separated by less than their diameters, gradually slightly finer laterally to the humeri, and gradually finer and sparser apically; punctures of apices very fine, about the size of the epistomal punctures. A row of fine punctures present along suture on about apical half, these together giving somewhat the appearance of a stria, under certain lighting.

Pygidium densely, subcibrately punctate, the punctures of about the same size as the coarsest pronotal punctures.

Prosternal keel broad, lobe of about same length as keel, well defined. Lobe densely, finely punctate, except basal portion, which is reticulato-punctate as is anterior half of keel; basal half of keel glabrous, impunctate.

Mesosternum with a row of coarse punctures along meso-metasternal suture (no stria present), and, anterior to this, an irregular row or two of slightly finer punctures, with fine punctures along extreme anterior margin. Marginal stria absent behind keel, present on oblique sides only.

Metasternum, including elevated sides, very coarsely punctate, the punctures separated by less than their diameters, mostly by half their diameters or less, excepting a round small median area which has a few minute punctures, particularly in the female. Extreme apical margin with a row of minute punctures.

Lateral metasternal stria recurving to mesepimeral-metepisternal suture. Arcuate meso-postcoxal stria extending laterally and transversely to near outer arm of lateral metasternal stria. Meso-postcoxal plaque with a couple of coarse punctures antero-laterally. Mesepimeron divided by a longitudinal angulate stria, the inner area glabrous, the outer with close, deep punctures. Metepimeron with an anterior puncture, otherwise glabrous.

Intercoxal disk of first abdominal sternum coarsely, closely punctate, laterally and in a row across base; fine punctures present across apical margin, these sometimes extending nearly to base at middle in female (which has a longer, less strongly emarginate first sternum); striation as in *remingtoni* but without a stria along lateral margin. Meta-postcoxal plaque with one or two coarse vague punctures behind coxa and a few along lateral margin, and vague indications of micro-rugulose ground sculpture.

Length 0.62–0.84 mm., width 0.51–0.65 mm.

Holotype.—A male collected seven miles southeast of La Foa January 28, 1945, by Charles L. Remington. In the collection of Chicago Natural History Museum.

Paratypes.—Ten specimens, same data as the type. Three, same data, but collected January 31, 1945. One, same data but collected April 6, 1945. One specimen, same data, but collected April 24, 1945, "in rotting log." Paratypes to be distributed in the collections of the British Museum (Natural History); Museum National d'Histoire Naturelle, Paris; Institut Royal des Sciences Naturelles de Belgique,

Brussels; United States National Museum; California Academy of Sciences; the American Museum of Natural History; and Monsieur Jean Théron, Nîmes, France.

Bacanius punctiger Fauvel comb. nov. Plate 14, fig. 2.

Abraeus punctiger Fauvel, 1891, Rev. d'Ent., 10—Institut Royal des Sciences Naturelles de Belgique, Brussels (New Caledonia: Koutio-Koueta).

At hand is one of Fauvel's two types of this species. It is labeled "Koutio-Koueta, écorces de nialouais,¹ juillet (Savés)." It lacks head and prothorax. Presumably the other type, from Yahoué, could not be found, since the above imperfect specimen was sent in response to a request for loan of the type. I have labeled, and herein designate, this specimen as the lectoholotype.

Bacanius punctiger is so similar to *fauveli* sp. nov. in the structure and punctuation of elytra, meso- and metasternum and abdomen that I at first considered them to be a single species. However, none of the specimens in the series of *fauveli* approach the type of *punctiger* in the extent of the fine punctuation of the middle of the metasternal disk. Further, *punctiger* apparently is a larger species. The type measures 0.76 mm. from humeral angles to apices of elytra, in contrast to a range of 0.51 to 0.65 mm. in the type series of *fauveli*, with a standard deviation of ± 0.04 mm. from the mean of 0.57 mm. The calculated probability that a specimen the size of the type of *punctiger* might occur in a population of *fauveli* is one in about 31,500.

B. punctiger and *fauveli* appear to be identical in punctuation of the elytra, striation and punctuation of the epipleura and meso- and metathoracic pleurites. Because of the close similarity between the two species in these characters, it is likely that when additional specimens of *punctiger* are obtained, this species will prove to be very much like *fauveli* in punctuation and in structure of head and prothorax.

Bacanius remingtoni sp. nov. Plate 15, fig. 2.

A minute, oval, rather strongly convex species, lacking antescutellar and meso-metasternal striae. Essentially punctate throughout. Elytra with two complete epipleural striae and an abbreviated subhumeral; epipleural fossette without row of punctures between striae. Prosternal keel impunctate. Meso-metasternal disk with rather uniformly distributed coarse punctures. Mesepimeron divided by a

¹ The cajaput, *Melaleuca leucadendron*.

longitudinal angulate stria into an inner glabrous and an outer punctate area.

Related to *punctiger* and *fauveli* but differing from them by the characters given in the key.

Color orange-brown. Epistoma feebly convex before suture, deeply, finely punctate, the punctures rather close, mostly separated by one to two times their diameters; frons and vertex more sparsely and a little more finely punctate.

Pronotum deeply, moderately, almost uniformly punctate, the punctures separated mostly by one to two times their diameters, and gradually slightly finer apically and laterally, excepting along extreme margin where they are minute. Marginal stria complete, very feebly crenated by minute sparse punctures along anterior margin, deeper and with larger deeper punctures along lateral margins, but no more distinctly crenated.

Epipleura with complete marginal epipleural and marginal elytral striae; marginal epipleural stria somewhat obsolescent on about basal third, but traceable by its rather large punctures, this basal portion followed by a short deep arc which is followed in turn by another arcuate, subcariniform segment along lower edge of epipleural fossette, the dorsal edge of the stria with moderately coarse punctures along the fossette. Marginal elytral stria extremely fine and subcariniform basally, strongly arcuate and more strongly subcariniform above fossette; upper edge with moderate punctures along fossette, which lacks punctures that are independent of the striae. Subhumeral stria extremely fine basally, extending nearly to base but difficult to trace on left side of type, arching inwardly basally on right side of type, closely crenulated and feebly subcariniform on apical three-fourths. Marginal epipleural stria continued around apical angle (where it is united with the marginal elytral and subhumeral) and extending across apex to suture. Interval between first dorsal and marginal elytral stria wide on basal half, very finely, sparsely punctate, with a very fine stria on about basal third. Medial to the first dorsal is an extremely fine stria which extends from about basal third to apical third and which can be detected only under very high magnification (ca. $\times 125$ and above), under certain lighting. Elytra in scutellar region more coarsely punctate than pronotum, the punctures separated by about their diameters and becoming gradually a little finer laterally to the first dorsal, where they are approximately the size of the coarsest pronotal punctures. A row of finer punctures present along suture on apical half, these becoming finer and almost linear near apex.

Pygidial punctures of moderate size, separated by about their diameters, slightly finer than discal pronotal punctures, and slightly sparser basally than apically.

Prosternal keel broad, glabrous, appearance impunctate; lobe rather strongly flexed (the suture unusually distinct), nearly as long as keel, and finely, rather closely punctate.

Meso-metasternal disk with punctures very uniformly distributed, punctures separated by one to two times their diameters; punctures of the mesosternum, and of the metasternum immediately behind the suture, of about the same size as those of the lateral (not marginal) pronotal punctures; metasternal punctures becoming immediately much coarser (behind suture) and gradually increasing in size apically, coarsest at about apical two-thirds along midline, finer at apex. Punctures of elevated metasternal sides of the same size as the coarsest discal punctures and sepa-

rated by about their diameters. Mesepimeron with an angulate longitudinal stria at middle; the area lateral to the stria with moderately coarse punctures, the inner area glabrous. Marginal mesosternal stria absent behind the prosternal keel, present along oblique sides only, continued posteriorly as the lateral metasternal stria which recurves to the angle formed by the junction of the mesepimeron, metepisternum, and metasternum. Meso-postcoxal stria margining the edge of coxal cavity, not reaching mesepimeron. Plaque with a few vague coarse punctures. Metepimeron with a couple of anterior punctures and feeble micro-rugulae.

Intercoxal disk of first abdominal sternum baso-laterally with moderate punctures (of about the size of the pygidial punctures), which become finer medially and apically. Lateral stria inwardly oblique to apex, then turning laterally and extending across apex, terminating near side margin, the latter with a separate marginal stria from base to apex. A second short oblique stria present lateral to the lateral stria behind the hind coxa. Meta-postcoxal plaque with a few vague coarse punctures and feeble micro-rugulae.

Length 0.76 mm.; width 0.58 mm.

Remarks.—This species is named in honor of Dr. Charles L. Remington.

Subfamily HISTERINAE

Sternaulax caledoniae Fauvel

Sternaulax caledoniae Fauvel, 1891, Rev. d'Ent., **10**: 164—Institut Royal des Sciences Naturelles de Belgique, Brussels (New Caledonia: Canala); Lewis, 1907, Ann. Mag. Nat. Hist., (7), **20**: 34.

The only evidence, to date, of any relationship between the histerid fauna of New Caledonia and New Zealand is the occurrence in each of an endemic species of *Sternaulax*. No other species of *Sternaulax* have been described.

In the one specimen of *S. caledoniae* available to me, tarsomeres 1 to 3 of meso- and metatarsi have a brush-like row of about a dozen long setae on their ventral surface. In a series of about a dozen specimens of *zealandica* examined, both sexes have four to six setae, not brush-like in appearance, on meso- and metatarsi. Brush-like groups of setae on the meso- and metatarsi are to be found in both sexes of species of *Hypsolenus* (but not of *Plaesius*), as well as in *Idister mendax* Lewis (but not in *I. morphon* Marseul), and in *Petalasoma hirtipes* Lewis. I consider *Sternaulax* to be most closely related to *Idister* from the Malay Archipelago.

The two species of *Sternaulax* may be separated as follows:

Head without frontal stria, or with only a couple of rudimentary arcs; marginal pronotal stria striiform only behind the head, represented around anterior angles and along sides by more or less disconnected punctures or striae, these distant and not forming even a pseudostria on basal half, where they form a

double row; external subhumeral stria complete apically, often obsolete or absent at base; dorsal elytral striae 1 and 3 marked at base by strong, elongate foveoles, 2 represented by a weaker foveole; dorsal stria 1 obsolete basally, usually absent between basal foveole and middle or basal third; dorsal 3 very fine, oblique, present on about basal half; dorsals 2 and 3 represented by apical striae as well, the fourth sometimes represented apically by a U-shaped stria; pygidium not margined *zealandica* Marseul (1853, p. 236).

Frontal stria nearly complete, narrowly interrupted at middle, feebly biarcuate; marginal pronotal stria essentially complete, replaced by punctures basally along lateral margin only; outer subhumeral stria absent on about apical fourth, fine, subcariniform, arching across base toward dorsal 1; dorsal striae 2 and 3 with only very feeble indications of basal foveoles; dorsal 1 complete; dorsal 3 as in *zealandica*; pygidium with elevated margin, as in *Platylister* species, except at apex *caledoniae* Fauvel.

In general, *caledoniae* is a more finely punctate species than is *zealandica*.

The genus *Sternaulax* cannot be separated from *Platysoma* and allied genera on the basis of the characters employed in keys by Bickhardt (1917, 1920), who differentiated between the two genera on the basis of the presence or absence of a frontal stria. Bickhardt probably had seen only *zealandica*, which lacks this stria. As indicated above, *caledoniae* possesses a frontal stria. *Sternaulax* actually differs from *Platysoma* and allies in possessing the combination of these characters: striate prosternum, a well-developed subhumeral stria, and moderately convex form. The subhumeral stria is lacking in all species of *Platysoma*.

Previous records.—Ourail. Canala. Mt. Panié (Heller, 1916).

Material examined.—One of Fauvel's original types labeled "Kanala." This specimen agrees well with Fauvel's original description. I have labeled it, and herein designate it, as the lectoholotype.

Apobletes montrouzieri Marseul

Macrosternus montrouzieri Marseul, 1860, Ann. Soc. Ent. Fr., (3), 8: 264—Museum National d'Histoire Naturelle, Paris (New Caledonia).

Apobletes montrouzieri Marseul, 1861, Ann. Soc. Ent. Fr., (3), 8, (1860), p. 860, pl. 15, fig. 6; 1864, Abeille, 1: 287, 291.

Apobletes montrousieri Fauvel, 1891, Rev. d'Ent., 10: 164.

This species is closely related to, if not identical with, *A. appendiculata* Schmidt, from New Guinea. It is also related to an undescribed species from the island of Ponape in Micronesia. At hand are series of specimens from the Mariannas and Truk that are very close to *montrouzieri*, especially the series from Truk. Marseul (1864)

reports *montrouzieri* from the Moluccas and from the island of Flores, but these records should be suspected until the specimens can be compared not only with *montrouzieri* but with related populations from Papua and Oceania as well. I have not seen the type of *appendiculata* Schmidt.

It should be noted here that no species of *Apobletes* have been recorded from either Australia or New Zealand; about thirty-two have been described from Indomalaya and Papua.

Previous records.—Nouméa; Tonghoué (under bark of rotten trees); Kanala.

Material examined.—The type in the Paris Museum, labeled "N. Caledon. Montr.," and two specimens labeled "New Caledonia. Walker 1900" from the George Lewis Collection (BMNH), by exchange.

Platysoma (Platysoma) connexum Fauvel. Plate 16, figs. 3, 4.

Platysoma connexum Fauvel, 1891, Rev. d'Ent., 10: 166, 165 (key)—Institut Royal des Sciences Naturelles, Brussels (New Caledonia: Yahoué); Lewis, 1907, Ann. Mag. Nat. Hist., (7), 20: 342.

P. connexum is closely related to *querulum* Marseul, a species described from the island of Batjan and recorded from New Guinea and Queensland, Australia, by Lea (1925). In the collection of Chicago Natural History Museum are specimens of *querulum* from Timor and Queensland, Australia; the Australian specimen is somewhat doubtfully assigned by me to *querulum*, but it is clear, nonetheless, that relatives of *connexum* are to be found in the Moluccas, New Guinea, and Australia. *Platysoma laeve* Marseul from Tasmania seems to be closely related, but it is known to me only from the original description and Lea's remarks on the species (1925).

If Bickhardt (1919, 1920) were followed, *connexum* would be placed in the genus *Eurylister* Bickhardt. However, I do not feel that the genus can be recognized or that it can even be treated as a subgenus.

The following notes—supplementary to Fauvel's original description of *connexum*, and to the characters given in the key below—are based on the lectoholotype, as are the figures (pl. 16, figs. 3 and 4).

More flattened than *urvillei* and *montrouzieri*. Surface microscopically punctulate throughout. Frontal stria complete, minutely outwardly angulate at middle, continuous with the intraocular striae. Marginal pronotal stria complete, not curved inwardly along the basal margin. Lateral pronotal stria fine, subcariniform, extending around apical angles and inwardly a short distance along basal margin. Dorsal striae 1 and 2 complete, 3 present on middle third, 4 indicated by a puncture or two at apex. Epipleura bistriate. Marginal stria of prosternal lobe close to the

margin throughout its length. Marginal mesosternal stria following the conformation of the anterior mesosternal angles, complete along anterior margin, interrupted at base on each side, not continuous with the lateral metasternal stria.

Protibiae quadridentate, the two apical teeth largest, separated by a smaller interval than are the second and third; basal tooth minute. Mesotibiae quadridenticulate, the basal denticle minute, setiform. Metatibiae with a spinule bearing tooth at apical third and two spinules on a single process at apex of outer margin.

Length, P-E 3.32 mm., P-P 3.74 mm., width 2.19 mm.

Previous records.—Fauvel's type specimens were from Tonghoué, under bark of old trees, January; Yahoué, rotten bark of candlenut tree, August; Canala.

Material examined.—One of Fauvel's types, bearing the handwritten label "Yahoué écorces de bancoulier."¹ I have labeled, and herein designate, this specimen as the lectoholotype.

Platysoma (Platysoma) pacificum Lewis

Platylister pacificus Lewis, 1910, Ann. Mag. Nat. Hist., (8), 6: 50—British Museum (Natural History) (New Caledonia).

Platysoma (Platylister) pacificus Desbordes, 1917, Ann. Soc. Ent. Fr., 85, (1916), p. 308 (key).

This species is not represented in the material at hand. It seems to be related to *enode* Lewis (New Guinea) and to *montrouzieri*. The characters given for this species in the key are abstracted from the original description and from Desbordes' key (1917).

Platysoma (Platysoma) montrouzieri Perroud. Plate 16, fig. 2.

Platysoma montrouzieri Perroud, 1864, Soc. Linn. Lyon, 11: 92—(New Caledonia: Canala); Marseul, 1870, Ann. Soc. Ent. Belg., 13: 67.

Platysoma montrousieri Fauvel, 1891, Rev. d'Ent., 10: 165.

Platysoma (Platylister) montrouzieri Bickhardt, 1910, Coleop. Cat., 8, pt. 24, p. 23.

Platysoma perroudi Marseul, 1870, Ann. Soc. Ent. Belg., 13: 67.

Platysoma connexum Lewis, 1905, Syst. Cat. Hist., p. 16 (in error).

Fauvel (loc. cit.) places *montrouzieri* near *contiguum* Marseul, an Australian species. It is related also to *abruptum* Erichson (India, Java, Borneo, Philippines) and probably to *pacificum* Lewis and *enode* Lewis (New Guinea). Fauvel noted that he possessed some of Perroud's types of *montrouzieri*. It is possible that additional types are in that part of Perroud's collection which was acquired by Maurice Pic.

¹ The candlenut tree, *Aleurites moluccana*.

Previous records.—Canala, under bark of old trees; Ourail; Isle of Pines.

Material examined.—Two specimens from seven miles southeast of La Foa, collected January 28, 1945, by C. L. Remington (CNHM). A single specimen labeled "New Caledonia," from the George Lewis collection (BMNH), by exchange.

Platysoma (Platysoma) urvillei Le Guillou. Plate 16, fig. 1.

Hololepta urvillei Le Guillou, 1844, Rev. Zool., 1844: 223—(?) Museum National d'Histoire Naturelle, Paris (Tonga: Vavao).

Platysoma urvillei Fairmaire, 1849, Rev. Zool., 1849: 410; Marseul, 1853, Ann. Soc. Ent. Fr., (3), 3: 260, pl. 7, fig. 5; 1864, Abeille, 1: 293; Fauvel, 1891, Rev. d'Ent., 10: 165 (key), 166; Arrow, 1927, Ins. Samoa, 4: 38.

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Platysoma (Platylister) urvillei Bickhardt, 1910, Coleop. Cat., 8, pt. 24, p. 20; Desbordes, 1917, Ann. Soc. Ent. Fr., 85, (1916), p. 303 (key).

Unfortunately, I have not seen New Caledonia specimens of *urvillei*, and I cannot be certain that Fauvel's identification of this species was correct, in spite of the fact that he stated that it was based upon comparison with the types (!) in the collections of Marseul and Fairmaire. For Fauvel, in his key (1891, p. 165), stated that the propygidium was extremely finely punctate. This description does not fit *urvillei*, in which both the propygidial and the pygidial punctures are large and well marked (pl. 16, fig. 1).

Fauvel (loc. cit.) listed *urvillei* as occurring in Fiji, Tahiti, New Caledonia, Tonga, Wallis, New Guinea, Ceram, and Mysol. Arrow (1927) added Samoa, Borneo, Malay Peninsula, and Madagascar. The species has an extensive range, but probably it is not as widely distributed as these records indicate. Although the collections available to me include extensive lots of *Platysoma* species from the Molucas and New Guinea, I have not seen specimens of *urvillei* from those areas; at least some of the reports may be based upon misidentified material, perhaps of *vanum* Schmidt. The record from Madagascar is particularly suspect, though it is possible that the species has been introduced there. Probably *urvillei* is primarily an island species of Oceania. In the collections of Chicago Natural History Museum, Bernice P. Bishop Museum, and the Pacific Science Board, are specimens of what I consider to be *urvillei* from Samoa, Fiji, New Hebrides, New Georgia Island, Bougainville Island, Palau Islands, the [Marianas, and Kusaie (!) as well as specimens of an undescribed, closely related sibling species from Truk and Ponape.

P. vanum Schmidt (Sumatra) somewhat resembles *urvillei*, as to a lesser degree do *oronense* Marseul (New Guinea, Philippines) and *frontosum* Marseul (Borneo).

Previous records.—Mt. Mou; Yahoué (rotten bark of candlenut tree, August); Tonghoué (August); Païta; Canala.

Material examined.—The characters given in the key are based upon the specimens noted above from Samoa, Fiji, New Hebrides, New Georgia Island, Bougainville Island, the Palau Islands, Marianas, and Kusaie. The figure is based upon a specimen from Upolo Island, Samoa, collected by Elwood C. Zimmerman (Bishop Museum Collection).

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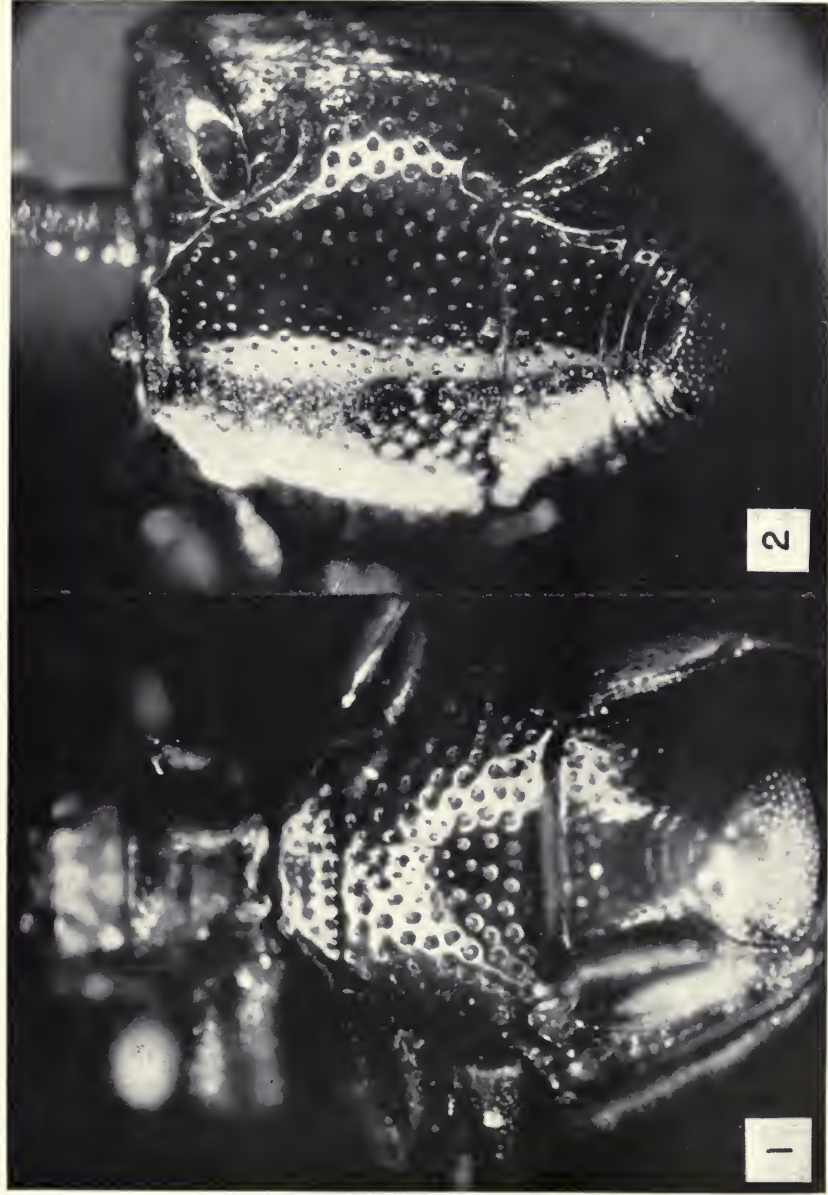
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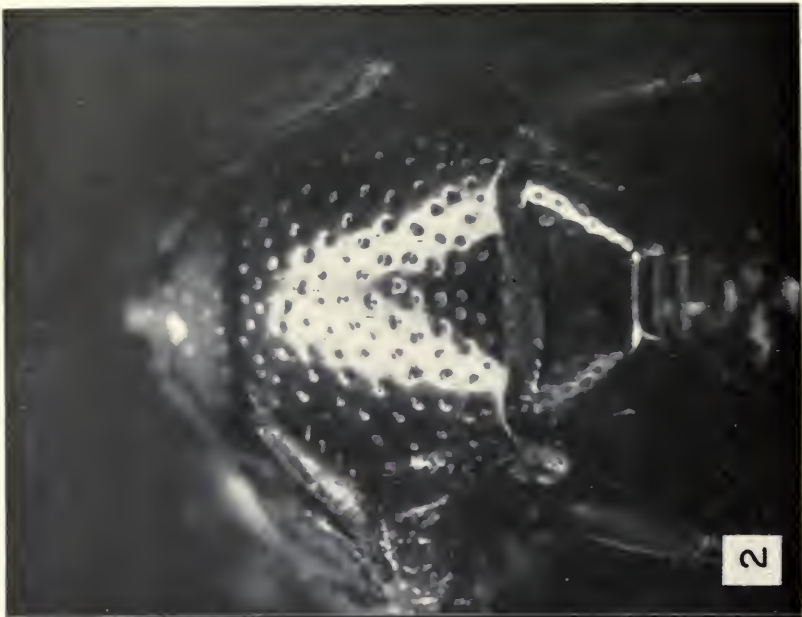
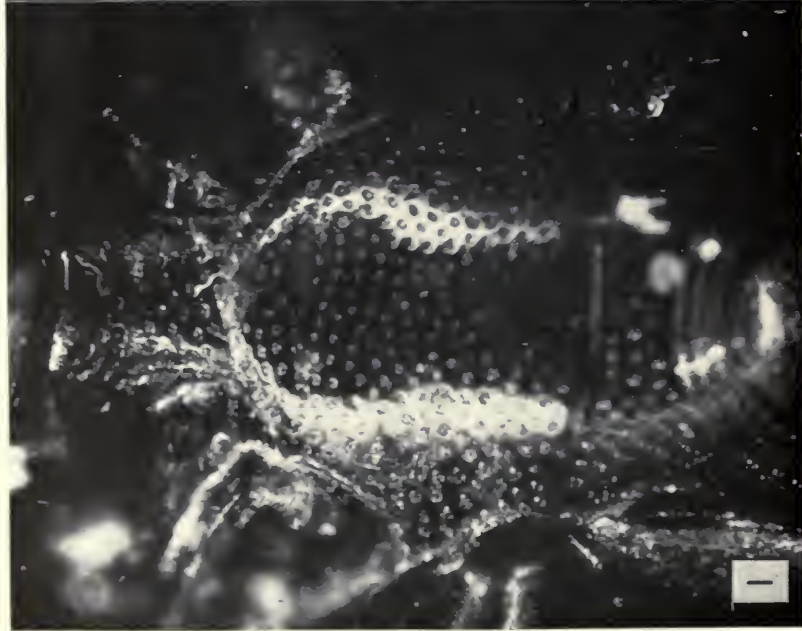
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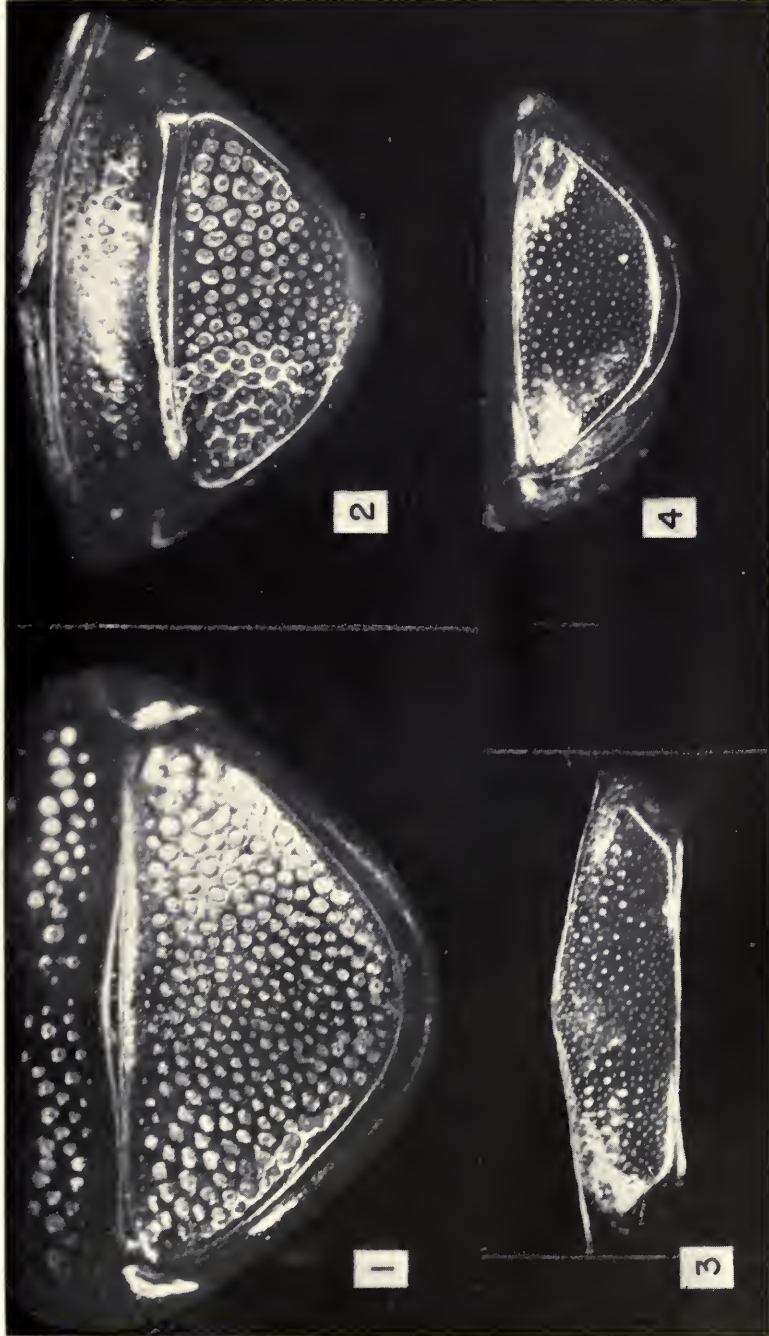
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 1864. Catalogue of the coleopterous insects of the Canaries in the collection of the British Museum. xiii+648 pp. London, Taylor and Francis.



1, *Bacanius fauveli* sp. nov., paratype, under side; $\times 125$. 2, *B. punctiger* Fauvel, holotype, under side (head and prothorax lacking); $\times 125$.



1, *Bacanius acicularis* Fauvel, holotype, under side; $\times 140$. 2, *B. remingtoni* sp. nov., holotype, under side (head and prothorax removed); $\times 125$.



1, *Platysoma urvillei* Le Guillou, pygidia. 2, *P. montrouzieri* Fauvel, pygidia. 3 and 4, *P. connerum* Fauvel, holotype, pygidium and pygidium. $\times 43$.



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